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AUTHOR Davis, Jerry S.
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ABSTRACT

Reported on are the aggregated financial aid needs of full-time undergraduate students attending New Jersey's colleges and universities during the 1973-74 academic year. An aggregate need analysis methodology is employed, using assumptions that produce the most conservative estimates possible. Computation includes student's and parent's expected contribution to college expenses, comparison of this contribution to college costs, and reduction of the difference to account for available financial aid funds. Analyses include outcomes by income levels and institutional types. (Author/KE)

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HE 008 248

COMMISSION ON FINANCING POSTSECONDARY EDUCATION
STATE OF NEW JERSEY

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A PUBLIC COMMISSION APPOINTED BY THE NEW JERSEY BOARD OF HIGHER EDUCATION

A REPORT ON UNDERGRADUATE STUDENT FINANCIAL AID NEEDS AND RESOURCES IN NEW JERSEY COLLEGES AND UNIVERSITIES 1973-1974

Dr. Jerry S. Davis

Brookdale, California

PREFACE

The following report on the aggregate financial aid needs of full-time undergraduate students attending New Jersey's colleges and universities appears to be of general interest to the education community of the State. In light of this perception, the New Jersey Commission on Financing Postsecondary Education is publishing and disseminating the report.

The author, Dr. Jerry Davis, is a member of the staff of the National Task Force on Student Aid Problems. Dr. Davis prepared this report while serving as a consultant to the Department of Higher Education and drew on his experience preparing similar reports for other states.

The methodology employed, aggregate need analysis, is a widely accepted technique, but some error may be introduced because of the use of institutionally reported income data. However, the induced error that may exist will impact only on the magnitude of need and will not materially affect the direction of shifts in need or the compilation of data on the segments where need is greatest.

Andrew H. Lupton
Executive Director

ABSTRACT

This report assesses the financial aid needs and resources of students in New Jersey colleges and universities during the 1973-74 academic year. An aggregate need analysis methodology is employed, using assumptions that produce the most conservative possible estimates of financial need and unmet financial need. This approach includes the aggregate computation of a student's, or parents', expected contribution to college expenses, comparison of this contribution to college costs (resulting in an estimate of financial need), and reduction of the difference to account for available financial aid funds (resulting in an estimate of unmet need). Analyses throughout the report include effects by income levels and institutional type.

The method employed defines financial need as the factor left after the estimated family contribution (plus self-help from the student) has been subtracted from total college costs. The average financial need per student in New Jersey colleges and universities for 1973-74 was $870 for students in the four year public institutions, $1,800 for the four year private institutions, $713 for the two year public institutions, and $1,735 for the two year private institutions, for an overall eight percent increase in aggregate financial need over 1972-73.

In 1973-74 there was $118.5 million available in student financial aid from all sources in the State. More than one-third of this amount was provided by the State of New Jersey through its programs of student assistance, just under a third in the form of education benefits from state and federal governments, and approximately 15 percent from both the financial aid programs of the federal government and institutional student aid programs. The distribution of financial aid from the state's student assistance programs more closely parallels the need of students, analyzed by institutional type, than does the distribution of aid from federal programs. At the same time, the federal student aid programs provide proportionately more dollars to lower income students than do the State programs.

The concept of unmet need, after the available financial aid has been considered, among enrolled college students denotes sacrifice, because many students are managing to meet the estimated total college costs without the benefit of the aid estimated to be necessary to support them. This concept is impressive in its magnitude, as the unmet need of full-time undergraduates in New Jersey colleges and universities is estimated to have been $51.2 million for 1973-74. The unmet need of students from different family income intervals is disproportionate to their financial need. This is particularly evident in the example of students from families with incomes of $9,000 to $12,000 per year, who represent 17 percent of all enrolled students, experience 24 percent of the financial need, have access to just 13 percent of all available student aid, and, consequently, have 37 percent of the total aggregate unmet need. As a subset, the students that are faced with the greatest proportionate aid problem

are the four year independent college students from families in this income interval, who represent just five percent of all full-time undergraduates, but represent 18 percent of the total aggregate unmet need.

With regard to future financial aid need and resources, the estimated impact of the new College Scholarship Service contribution schedules would be to increase estimated unmet financial need, assuming no shifts in enrollment and no increase in college costs, to a level of $110.6 million in 1975-76. Changes in these contributions, and estimated availability of federal basic grants do not result in significant shifts in unmet need between institutional types, but do mean that students from families with incomes over $12,000 will constitute approximately 47 percent of the aggregate unmet need in 1975-76, as opposed to 12 percent in 1973-74. In other words, if the major federal programs continue to concentrate on students from low income families, increasing costs will make it necessary for states to re-evaluate student aid programs with regard to the unmet needs of middle income families.

A Report on Undergraduate Student

Financial Aid Needs and Resources

In New Jersey Colleges and Universities

1973-1974

I. INTRODUCTION

The purpose of this report is to assess the student financial aid needs and resources of full-time undergraduate students enrolled in New Jersey colleges and universities in the academic year 1973-1974. The report format is similar to that of a report on the same topic concerning financial need in 1972-1973 for the New Jersey Department of Higher Education in Winter, 1973. This report is an update of the statistics of 1972-1973. It is necessary because of rather dramatic shifts in costs to students and changes in their (and their families) ability to pay for postsecondary education due to rising costs and inflation. While these factors affect all students at all levels of postsecondary education, this report focuses attention on only the students who are enrolled as full-time undergraduates in the two-year and four-year public and private colleges of the State.

II. METHODOLOGY: Aggregate Need Analysis

In order to determine the financial aid needs of undergraduates, a method called aggregate need analysis was employed. This method has been used successfully in statewide financial aid studies in Alabama, Florida, Georgia, North Carolina, Tennessee, Texas, Virginia, and West Virginia and for a study of the student needs of undergraduates enrolled in the compact states of the Southern Regional Education Board[1]. Basically, it requires data on enrollment of full-time students in the

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[1]Davis, Jerry S., Student Financial Aid Need and Resources in the SREB States: A Comparative Analysis, Atlanta: Southern Regional Education Board, 1974.

colleges under study which includes:

1. The size of the study population, by institutional type.

2. The percentage of male and female students in the population.

3. The distribution of students by parental income or, if they are independent students, by their own family incomes.

4. The average expected parental contribution by income intervals and average family size. Contributions vary by family income and size.

5. The average amount of self-help expected from the students. Self-help contributions from summer and term time earning vary by sex and class standing.

6. The educational costs or student budgets including, if appropriate, differential budgets for men, women, commuters, and resident students.

7. The amounts of financial aid presently available and/or awarded to students by level of parental income. Available aid should be broken down by source (state, federal, institutional) and by type (grant, work, loan), if possible.

8. The percentage or number of students who employ the various budgets included in the analysis.

The data were collected from a variety of sources including the U.S. Office of Education, the New Jersey Department of Higher Education, the College Entrance Examination Board (CEEB), the College Scholarship Service (CSS), various New Jersey state agencies, and previously published reports on financial aid and student needs.

Income Distributions: The financial aid administrators of New Jersey colleges and universities, in filing their 1974 Institutional Applications to Participate in Federal Student Financial Aid Programs (APPLCN's), are required to provide data concerning the distribution of family incomes of all full-time enrolled undergraduates. These distributions for the four relevant types of institutions were initially compiled from the APPLCN's. Since income distributions are critical to aggregate need analysis, the APPLCN data were verified and adjusted from data available from the U.S. Census Bureau, the College Board, the College Scholarship Service, and reports by or research studies from state agencies to provide the best possible estimates of student family incomes at the different institutions. The

final best estimates are presented in Table One. (A comparative view of New Jersey family income distributions for college students is given in Appendix A.)

TABLE ONE

Family Income Distributions, By Institutional Type, 1973-74

Annual Income	4 year Public	4 year Independent	2 year Public	2 year Independent	All Colleges
Less than $6,000	17.6%	10.1%	23.7%	10.0%	16.9%
$6,000 - $8,999	16.7	13.7	19.3	16.5	16.5
$9,000 - $11,999	18.7	20.9	20.5	19.0	19.7
$12,000 - $14,999	18.6	19.6	18.6	19.4	18.9
More than $15,000	28.4	35.7	17.9	35.1	28.0
	100.0%	100.0%	100.0%	100.0%	100.0%
Median Income	$11,520	$12,810	$10,025	$12,695	$11,530

Expected Parental Contributions: The ability of families to pay for their children's education varies by income and size. From the 1970 Census data it was determined that the average size of families with college-age dependents in New Jersey is around 4.5, or to put it another way, the typical family with college-age dependents is comprised of two parents and 2.5 dependent children. For the purpose of this report, it was assumed that only one of those children was in college. Using this conservative estimate, of course, produces larger average family contributions because as family size decreases or income increases, expected contributions increase. If other researchers assumed larger family sizes, expected family contributions would be decreased and, therefore, aggregate financial need would be increased above the estimates to be presented below.

The College Scholarship Service, with the help of financial aid administrators and economists, has developed systems and procedures for determining what families of different sizes and financial circumstances can reasonably be expected to contribute to their student dependents' education each year. An average expected

family contribution for students whose family incomes fell in each of the five income intervals used in this report was derived from CSS standard contribution tables for families with 2.5 dependents and no unusual family circumstances.[2]

In this report no family contribution was expected from families with "less than $6,000" annual income. An average contribution of $242 was expected from families in the $6,000 to $8,999 interval, an average contribution of $875 was expected from families in the $9,000 to $11,999 interval, and an average contribution of $1,663 was expected from families in the $12,000 to $14,999. Contributions for families with incomes of "more than $15,000" varied by institutional types due to the shape of the income curves. For 4 year public colleges, the estimated contribution for this interval was $2,923, for 2 year public colleges, the estimated contribution was $2,515, and for the independent colleges, it was $3,341.

Student Self-Help: As noted above, student self-help contributions from summer and term-time earnings vary by sex and class standing. The CSS standards for student self-help contributions are as follows: for prefreshman men, $400; for prefreshman women, $300; for presophomore men, $500; for presophomore women, $400; for upperclassmen, $600; and for upperclasswomen, $500[3]. Using USOE and Department of Higher Education data to establish the proportions of students fitting each of these types, weighted self-help contributions for each type of institution were derived. They are: for the 4 year public colleges, $472; for the 4 year independent colleges, $497; for the 2 year public colleges, $411; and, for the 2 year independent colleges, $403.

College Costs: On their 1974 APPLCN's the financial aid officers were asked to provide the typical out-of-pocket costs for students who live at home and attend college (commuters) and students who live in dormitories or off-campus housing (residents) and what proportions of their students paid those costs. From this

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[2]College Scholarship Service, CSS Need Analysis: Theory and Computation Procedures For the 1973-1974 PCS and SFS, New York: College Entrance Examination Board, 1973.

[3]Ibid.

information and enrollment data the budgets were weighted to produce a "typical" budget for each type of institution's students in 1973-74. The budgets were: for 4 year public colleges, $2,503; for 4 year independent colleges, $4,096; for 2 year public colleges, $2,089; and, for 2 year independent colleges, $3,863.

Available Financial Aid: Data on the amounts of aid available to undergraduates in New Jersey's colleges and universities in 1973-74 were collected from the AAPLCN's, the USOE Regional Office in New York, the New Jersey Department of Higher Education, the Social Security Administration, the United States Department of Justice, the U.S. Bureau of Health Manpower Education, the New Jersey Division of Vocational Rehabilitation, the New Jersey Department of Veterans Affairs, and various published research reports.

The identification and distribution of available aid dollars among institutions and students by types of programs and awards is the most difficult procedure in aggregate need analysis. It is difficult because many agencies, including postsecondary institutions, do not have management information systems to precisely tell them or researchers the characteristics of aid applicants, aid recipients, or where the recipients spend their awards. For example, while virtually all agencies know how much money they award, slightly fewer of them know how many recipients received awards. A smaller number know the types of institutions where their awards are used. Even fewer agencies can provide income distributions of aid applicants or recipients. And, finally, very few agencies (among them the New Jersey Department of Higher Education) can provide income distributions of aid recipients within types of institutions.

The most comprehensive and accurate data were sought and obtained. Where it was necessary to make judgments about who received the aid dollars because no precise data were available, the aid was distributed for data purposes to students in accordance with program guidelines and with the assumption that the aid was available to students in proportion to their aggregate need. This assumption has the effect of producing an estimate of unmet need or additional aid required that is likely to

be a minimum estimate. This is because the aid from many of these programs is frequently not awarded to the students with the greatest amounts of financial need. Therefore, any other assumptions about the way aid is distributed would only result in larger estimates of unmet need than are presented below.

Independent Student Needs: The costs of education to, and financial capabilities of, the students who are responsible for paying for their own education, the independent students, are quite difficult to assess. This is because there are no data available to support the kind of precise estimates of financial circumstances of these students. Therefore, it was necessary to rely on different techniques and procedures to derive estimates of their needs. These techniques and procedures are described in detail in Appendix B to this report.

III. FINANCIAL NEED OF UNDERGRADUATE STUDENTS

Using the data described in Part II and Appendix B, it was possible to calculate the financial needs of the full-time undergraduate students enrolled in New Jersey's colleges and universities in 1973-74. The calculations for dependent students are detailed in Tables Two through Five below. The total aggregate financial aid needs for all students in the study was estimated to be $146,273,000. This averages $1,068 per full-time enrolled student. The per student averages at each type of institution are as follows: for 4 year public colleges, $870; for 4 year private colleges, $1,800; for 2 year public colleges, $713; and, for 2 year independent colleges, $1,735.

TABLE TWO

Calculation of Financial Need of Full-time Dependent Undergraduates at New Jersey Four Year Public Colleges

INCOME:	Less Than $6,000	$6,000 to $8,999	$9,000 to $11,999	$12,000 to $15,000	More than $15,000
Percentage of enrollment	17.6	16.7	18.7	18.6	28.4
Number of students	10,402	9,871	11,053	10,994	16,787
Average budget	$2,503	$2,503	$2,503	$2,503	$2,503
Total costs	$26,036,206	$24,707,113	$27,665,659	$27,517,982	$42,017,861
Average self-help	$472	$472	$472	$472	$472
Total self-help	$ 4,909,744	$ 4,659,112	$ 5,217,016	$ 5,189,168	$ 7,923,464
Family contribution	$0	$242	$875	$1,663	$2,923
Total family contribution	0	$ 2,388,782	$ 9,671,375	$18,283,022	$49,068,401
Financial need	$21,126,462	$17,659,219	$12,777,268	$ 4,045,792	---

Financial Need = total costs - (Total student self-help + total family contribution)

TABLE THREE

Calculation of Financial Need of Full-time Dependent Undergraduates at New Jersey Four Year Independent Colleges

INCOME:	Less Than $6,000	$6,000 to $8,999	$9,000 to $11,999	$12,000 to $15,000	More than $15,000
Percentage of enrollment	10.1	13.7	20.9	19.6	35.7
Number of students	3,017	4,093	6,244	5,855	10,665
Average budget	$4,096	$4,096	$4,096	$4,096	$4,096
Total costs	$12,357,632	$16,764,928	$25,575,424	$23,982,080	$43,683,840
Average self-help	$497	$497	$497	$497	$497
Total self-help	$ 1,499,449	$ 2,034,221	$ 3,103,268	$ 2,909,935	$ 5,295,535
Family contribution	$0	$242	$875	$1,663	$3,341
Total family contribution	0	$ 990,506	$ 5,463,500	$ 9,736,865	$35,631,765
Financial need	$10,858,183	$13,740,201	$17,008,656	$11,335,280	$ 2,756,540

Financial Need = total costs - (total student self-help + total family contribution)

TABLE FOUR

Calculation of Financial Need of Full-time Dependent Undergraduates at New Jersey Two Year Public Colleges

INCOME:	Less Than $6,000	$6,000 to $8,999	$9,000 to $11,999	$12,000 to $15,000	More than $15,000
Percentage of enrollment	23.7	19.3	20.5	18.6	17.9
Number of students	6,059	4,934	5,241	4,755	4,578
Average budget	$2,089	$2,089	$2,089	$2,089	$2,089
Total costs	$12,657,251	$10,307,126	$10,948,449	$ 9,933,195	$ 9,563,442
Average self-help	$411	$411	$411	$411	$411
Total self-help	$ 2,490,249	$ 2,027,874	$ 2,154,051	$ 1,954,305	$ 1,881,558
Family contribution	$0	$242	$875	$1,663	$2,515
Total family contribution	0	$ 1,194,028	$ 4,585,875	$ 7,907,565	$11,513,670
Financial need	$10,167,002	$ 7,085,224	$ 4,208,523	$ 71,325	$ ---

Financial need = total costs - (total student self-help + total family contribution)

TABLE FIVE

Calculation of Financial Need of Full-time Dependent Undergraduates at New Jersey Two Year Independent Colleges

INCOME:	Less Than $6,000	$6,000 to $8,999	$9,000 to $11,999	$12,000 to $15,000	More Than $15,000
Percentage of enrollment	10.0	16.5	19.0	19.4	35.1
Number of students	130	215	248	253	458
Average budget	$3,863	$3,863	$3,863	$3,863	$3,863
Total costs	$ 502,190	$ 830,545	$ 958,024	$ 977,339	$ 1,769,254
Average self-help	$403	$403	$403	$403	$403
Total self-help	$ 52,390	$ 86,645	$ 99,944	$ 101,959	$ 184,574
Family contribution	$0	$242	$875	$1,663	$3,343
Total family contribution	0	$ 52,030	$ 217,000	$ 420,739	$ 1,530,178
Financial need	$ 449,800	$ 691,870	$ 641,080	$ 454,641	$ 54,502

Financial need = total costs - (total student self-help + total family contribution)

The estimated financial need for dependent undergraduates is $135,132,000, and for independent undergraduates is $11,141,000. The total represents an eight percent increase over the estimated aggregate need for 1972-73. The increase is largely attributable to increases in the costs of education.

Financial need and enrollments are not proportionately distributed among institutions and income intervals. This is because students do not choose institutions entirely on the basis of the costs of education or their (and their families') ability to pay for those costs. In general, however, students from lower income families tend to choose lower-cost colleges.

For example, while the 2 year public colleges in New Jersey enroll only 24.3 percent of all full-time undergraduates, they enroll 30.9 percent of all the students from families with less than $6,000 annual income. On the other hand, while the 4 year independent colleges enroll only 24.5 percent of the students, they enroll 33 percent of the students from families with over $15,000 annual income.

Because they have less resources, the students from the lower income families have needs which are disproportionate to their numbers. The students from families with less than $6,000 annual income represent only 14.3 percent of all students. Their aggregate need, however, accounts for over 29 percent of the total need. Table Six displays the aggregate need by family income intervals and institutional types.

TABLE SIX

Financial Need by Income Intervals and Institutional Types

(amounts in 1,000's)

Income Interval	4 year Public	4 year Independent	2 year Public	2 year Independent	All Colleges
Less than $6,000	$21,126	$10,858	$10,167	$ 450	$ 42,601
$6,000 to $8,999	17,659	13,740	7,085	692	39,176
$9,000 to $11,999	12,777	17,009	4,209	641	34,636
$12,000 to $14,999	4,046	11,335	71	455	15,957
More than $15,000	--	2,757	--	55	2,812
Independent Students	4,200	4,713	2,139	89	11,141
	$59,808	$60.412	$23,671	$2,382	$146,273

IV. AVAILABLE FINANCIAL AID

There was $118,525,000 in aid from all sources available in 1973-74 to meet the financial needs of New Jersey's college and university students. The aid by sources is displayed in Table Seven.

TABLE SEVEN

Sources of Student Financial Aid
(amounts in 1,000's)

	Amount	Percent
Institutional Student Aid Programs	$ 19,792	16.7%
Federal Student Aid Programs	18,782	15.8
N.J. State Student Aid Programs	40,936	34.5
State and Federal Educational Benefits	37,872	32.0
Private and Other Sources of Aid	1,143	1.0
	$118,525	100.0%

The State of New Jersey provides more than one-third of the aid available to undergraduates through the Department of Higher Education's Educational Opportunity Fund, State Scholarship, Incentive Grant, Tuition Aid, and County College Graduate Scholarship programs and the New Jersey Higher Education Assistance Authority's guaranteed loan program.

Another third of the total available aid is in the form of education benefits from the State and federal governments. These benefits are available from the Social Security Administration, the Veterans Administration, the State Department of Vocational Rehabilitation, and the State Department of Veterans Affairs. While these benefits represent a significant percentage of all available aid, their impact is limited by the fact that relatively few students are eligible to receive them. Furthermore, they are not distributed according to demonstrated financial need, so many needy students do not receive these funds and, conversely, many students who are not financially needy do receive them.

The financial aid programs of the federal government provide 15.8 percent of all aid. These programs include the Basic Opportunity Grant, Supplemental Education Opportunity Grant, College Work Study, National Direct Student Loan, Law Enforcement

Education Assistance, and the Nursing and Health Manpower Professions Development programs. For the most part, these funds are awarded on the basis of financial need and are generally available to the most needy students.

Institutional student aid programs include those funds available primarily through the grants, loans, and work programs of the colleges as well as those funds which are directly controlled by them and not listed in any other category. The amount comprises all non-federal institutionally administered scholarships, loans, and student employment opportunities. Total assistance in this category represents 16.7 percent of all the available aid.

Sources of aid included in the private and other student aid programs category include aid offered through the programs of private foundations, businesses, civic clubs, churches, and local communities. These sources are estimated to represent about one percent of the total. Like educational benefits, they are frequently not awarded on the basis of demonstrated financial need.

There are three basic types of aid available to students. These include scholarships and grants, loans, and employment. Table Eight displays the percentage and amounts of these types of awards available to New Jersey's college and university students in 1973-1974. A fourth category of assistance, educational benefits, is listed in order to more accurately represent the types of aid available to students.

TABLE EIGHT

Types of Financial Aid by Institutional Types
(amounts in 1,000's)

Aid	4 year Public	4 year Independent	2 year Public	2 year Independent	All Institutions	Percent Aid Type
Grants	$19,368	$17,118	$ 6,613	$ 563	$ 43,662	36.8%
Loans	10,702	11,385	4,464	375	26,926	22.7
Work	4,148	4,071	1,713	133	10,065	8.5
Educational Benefits	15,741	6,732	14,503	896	37,872	32.0
	$49,959	$39,306	$27,293	$1,967	$118,525	100.0%

Scholarships and grants comprise almost 37 percent of all available aid, loans comprise over 22 percent, educational benefits account for 32 percent of the aid, and the remaining 9 percent is in the form of employment. Because of the New Jersey Educational Opportunity Fund, the percentage of scholarship and grant monies available to students is slightly higher than in most states.

Available aid to students varies by sources at different types of institutions. For example, while over 30 percent of the aid available to 4 year independent college students is from their institutions' aid programs, only four percent of the aid available to 2 year public college students is in that form; conversely educational benefits represent only 17 percent of the aid available to 4 year independent college students and over 53 percent of the aid available to 2 year college students. Table Nine displays the distribution of student financial aid by sources among institutional types.

TABLE NINE

Sources of Available Student Aid by Institutional Types
(amounts in 1,000's)

Sources	4 year Public	4 year Independent	2 year Public	2 year Independent	All Institutions
Institutional Aid Programs	$ 6,188 12.4%	$12,249 31.2%	$ 1,185 4.3%	$ 170 8.6%	$ 19,792 16.7%
Federal Student Aid Programs	9,684 19.4	4,628 11.8	4,278 15.7	192 9.8	18,782 15.8
State Student Aid Programs	17,880 35.8	15,308 38.9	7,058 25.9	690 35.1	40,936 34.5
State and Federal Educa. Benefits	15,741 31.5	6,732 17.1	14,503 53.1	896 45.5	37,872 32.0
Private and Other Aid Programs	466 0.9	389 1.0	269 1.0	19 1.0	1,143 1.0
TOTAL	$49,959 42.2%	$39,306 33.2%	$27,293 23.0%	$1,967 1.6%	$118,525 100.0%

Since the State and federal governments have prime responsibility for the provision of education to the citizens, it is particularly significant to note the ways in which aid from their programs is distributed among institutions in proportion

to the aggregate need of students at those institutions. Table Ten makes this comparison.

TABLE TEN

Percentages of State and Federal Aid Available to New Jersey Students by Institutional Types

Institutions	State Student Aid Programs	Federal Student Aid Programs	Aggregate Financial Need
4 year Public	43.7%	51.6%	40.9%
4 year Independents	37.4	24.6	41.3
2 year Public	17.2	22.8	16.2
2 year Independents	1.7	1.0	1.6
	100.0%	100.0%	100.0%

It will be noted that the distribution of aid from the State's programs more closely parallels the need of students by institutional types than does the distribution of aid from federal programs. The 4 year public college students appear to benefit the most from the federal programs as they receive over half of the aid from these programs, while their need accounts for only 41 percent of the total aggregate need.

When the distribution of State and federal aid dollars among students within various income intervals are compared, a different perspective is obtained. This distribution is presented in Table Eleven.

TABLE ELEVEN

Percentages of State and Federal Aid Available to Students by Family Income Intervals

Income	State Student Aid Programs	Federal Student Aid Programs	Aggregate Financial Need
Less than $6,000	29.5%	35.9%	29.1%
$6,000 to $8,999	14.5	25.3	26.8
$9,000 to $11,999	13.1	14.0	23.7
$12,000 to $14,999	13.4	6.8	10.9
More than $15,000	29.5	0.1	1.9
Independent Students	--	17.9	7.6
	100.0%	100.0%	100.0%

The federal student aid programs provide proportionately more dollars to lower income students than do the State programs. For example, while only 44 percent of the aid from State programs goes to students with family incomes of less than $9,000, 61 percent of the federal funds are received by these students. This is, in part, due to the fact that 52 percent of the federal aid goes to public college students where almost 81 percent of all these lower income students are enrolled.

V. THE UNMET FINANCIAL AID NEEDS OF NEW JERSEY UNDERGRADUATES

A secondary purpose of this report is to focus on the determination of the minimum amount of unmet need or additional aid required to enable students who are currently enrolled to reasonably afford the costs of education. The principle underlying the concept of unmet need for currently enrolled students is one of reasonable expected contributions from students and parents toward the costs of education. Financial aid officers and economists, among others, have through their experience and research established norms for amounts of money students and parents of various financial circumstances can reasonably afford to expend for educational purposes. These norms and expectations are built into several widely used need analysis systems and procedures, including the College Scholarship Service procedures which guide this report.

There is another way of looking at the significance of unmet need for currently enrolled students. The question arises, "If the enrolled students have unmet financial aid needs, how is it that they are enrolled in school?" The answer is that many parents and students make inordinate personal, familial, social, and financial sacrifices in order to pay the costs of postsecondary education. In a sense, the amount of unmet need represents a "sacrifice index" which can be expressed by the formula:

$$\text{Sacrifice Index} = \frac{\text{Aggregate Unmet Need}}{\text{Aggregate Financial Need}}$$

The Sacrifice Index is a measure of the magnitude of sacrifices a given population of students (and their parents) is willing and able to make to pay for educational costs. These students (and parents) represent a proportion of a larger population that could become willing and able to make the sacrifice. If it is assumed that only the enrolled students (and parents) from a given population are willing and able to make this amount of sacrifice, then it would appear that a reduction of the index must take place before new, non-enrolled students can become willing and able to enroll in postsecondary education.

While the magnitude of its effect is unknown, the sacrifice which students and parents make is a contributing factor to "drop-out" and "stop-out" rates in postsecondary education. Students who are willing and able to make sacrifices in one academic year may find it impossible to do so in subsequent years. As a result, they drop out of school. When students stop or delay their education, their resources, the institution's resources, and the public's resources are underutilized because each has received less than the maximum benefit for investment in education. It is quite possible that this loss to institutions and to the State exceeds the cost of meeting unmet need. Or, to put it another way, to develop or expand aid programs that reduce sacrifice indices may cost less than the cost of resource underutilization.

It should be understood that unmet need is a relative concept. The measurement of student and parental ability to pay for postsecondary education is not a precise technique or methodology, but is a procedure which is based on economic data, patterns of consumer expenditures, and the experience of financial aid administrators. If larger contributions are expected from students and their families (and they are in fact received), then the amount of "unmet need" will be reduced.

The average student self-help and average family contributions used in the preceding sections of this report represent the most reasonable and widely accepted expectations that were applicable in the 1973-1974 academic year.

The unmet need of New Jersey's college and university full-time undergraduates in 1973-1974 is estimated to have been $51,230,000. Table Twelve displays the unmet need by institutional types and family income intervals.

TABLE TWELVE

Unmet Financial Need by
Income Intervals and Institutional Types
(amounts in 1,000's)

Income Interval	4 year Public	4 year Independent	2 year Public	2 year Independent	All Colleges
Less than $6,000	$ 4,275	$ 3,676	$1,642	$ ---	$ 9,593
$6,000 to $8,999	6,226	6,238	2,010	339	14,813
$9,000 to $11,999	6,800	9,927	1,876	413	19,016
$12,000 to $14,999	573	5,292	---	271	6,136
More than $15,000	---	---	---	---	---
Independent Students	---	1,672	---	---	1,672
	$17,874	$26,805	$5,528	$1,023	$51,230

It is significant to note that unmet need is not distributed among institutions in proportion to the financial need of their students. This is because available aid is not distributed among institutions in proportion to their students' needs. The 4 year colleges present a good example of this phenomenon. The aggregate needs of the students at each type of college represent about 40 percent of the total aggregate need. However, the unmet needs of the independent college students represent nearly half of the total aggregate unmet needs. This is because they have access to a smaller percentage of available aid. Table Thirteen displays the percentages of enrollments, financial need, available aid, and unmet need by institutional types.

TABLE THIRTEEN

Percentages of Enrollment, Aggregate Financial Need,
Available Aid and Unmet Need by Institutional Types

Institutional Types	Enrollment	Financial Need	Available Aid	Unmet Need
4 year Public	50.2%	40.9%	42.2%	34.9%
4 year Independents	24.5	41.3	33.2	52.3
2 year Public	24.3	16.2	23.0	10.8
2 year Independents	1.0	1.6	1.6	2.0
	100.0%	100.0%	100.0%	100.0%

The unmet need of students from different family income intervals is also disproportionate to their financial need. This is particularly evident with regard to students from families with incomes of $9,000 to $12,000 per year. They represent 17 percent of all enrolled students, experience 24 percent of the financial need, have access to just 13 percent of all available aid, and, consequently, have 37 percent of the total aggregate unmet need. Table Fourteen displays the percentages of enrollments, financial need, available aid, and unmet need by family income intervals.

TABLE FOURTEEN

Percentages of Enrollments, Aggregate Financial Need, Available Aid and Unmet Need by Income Intervals

Income Interval	Enrollment	Financial Need	Available Aid	Unmet Need
Less than $6,000	14.3%	29.1%	27.9%	18.7%
$6,000 to $8,999	14.0	26.8	20.5	28.9
$9,000 to $11,999	16.6	23.7	13.2	37.1
$12,000 to $14,999	16.0	10.9	9.3	12.0
More than $15,000	23.7	1.9	14.2	--
Independent Students	15.4	7.6	14.9	3.3
	100.0%	100.0%	100.0%	100.0%

The students that are faced with the greatest proportionate aid problem are the 4 year independent college students from families with annual incomes between $9,000 and $12,000. They represent just five percent of all full-time undergraduates, but their unmet needs represent 18 percent of the total aggregate unmet need.

The average unmet need per enrolled full-time undergraduate student in 1973-74 was $397 per year. For students with demonstrated financial need, the average unmet need was $670. For the students from families with incomes between $9,000 and $12,000, the average unmet need was $856 per year.

VI. FUTURE FINANCIAL AID NEED AND RESOURCES

As was noted in the previous section of this report, financial need and unmet financial need are concepts which are relative to educational costs and student and parental ability to pay those costs.

The costs of education to students have risen at about 9 percent per year over the past four years.[4] There is no reason to expect this trend to be reversed. At the same time the cost of living has been rising and students and parents are finding themselves with fewer discretionary dollars to spend for education. In recognition of these economic developments, the College Scholarship Service significantly revised its expected family contributions for the 1975-1976 academic year.[5]

In order to provide an estimate of the potential impact of these changes in parental ability to pay for dependent children's education on the financial need of New Jersey's colleges and universities students, the new contributions have been substituted in the calculation of Tables Two through Five and new estimated aggregate needs have been recalculated. The new expected contributions are compared with the 1973-74 expectations in Table Fifteen.

TABLE FIFTEEN

Average Expected Family Contributions for 1973-74 and 1975-76 by Income Intervals and Institutional Types

Income Interval	4 year Publics		4 year Independents		2 year Publics		2 year Independents	
	1973	1975	1973	1975	1973	1975	1973	1975
Less than $6,000	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
6,000 to $8,999	242	0	242	0	242	0	242	0
9,000 to $11,999	875	85	875	85	875	85	875	85
12,000 to $14,999	1,663	600	1,663	600	1,663	600	1,663	600
More than $15,000	2,923	1,200	3,341	1,405	2,515	1,020	3,341	1,405

[4] Suchar, Elizabeth W., William D. Van Dusen, and Edmund C. Jacobson, Student Expenses at Postsecondary Institutions, 1974-75, New York: College Entrance Examination Board, 1974.

[5] College Scholarship Service, CSS Need Analysis: Theory and Computation Procedures For the 1975-1976 PCS and SFS, New York: College Entrance Examination Board, 1975.

The estimated impact of the new contribution schedules on aggregate financial need is displayed in Table Sixteen. The new estimated aggregate need would be $230,609,000. Financial need, assuming no shifts in enrollment and no increases in costs, will increase by almost 58 percent. The financial need of the students from families with incomes of over $12,000 is the primary locus of the changes. Their needs are increased by 330 percent as a consequence of this revised and more realistic expected family contribution.

TABLE SIXTEEN

Estimated Financial Need Under 1975-1976
Expected Family Contribution Schedules by
Institutional Types and Income Intervals
(amounts in 1,000's)

Income Intervals	4 year Public	4 year Independent	2 year Public	2 year Independent	All Colleges	Percent Increase
Less than $6,000	$21,126	$10,858	$10,167	$ 450	$ 42,601	NC
$6,000 to $8,999	20,048	14,730	8,279	744	43,801	11.6
$9,000 to $11,999	21,509	21,923	8,349	837	52,618	51.9
$12,000 to $14,999	15,732	17,559	5,126	724	39,141	146.1
More than $15,000	13,950	23,404	3,012	941	41,307	1369.9
Independent Students	4,200	4,713	2,139	89	11,141	NC
	$96,565	$93,187	$37,072	$3,785	$230,609	
Percent Increase	61.4	54.2	56.6	58.9	57.7	

The major shifts in proportions of financial need under the new contribution schedules will occur in both the lower and upper family income intervals. For example, in 1973-1974, the financial needs of the students from families with less than $9,000 annual income represented almost 56 percent of the total aggregate financial need. The financial aid needs of students from families with annual incomes of more than $12,000 represented just 13 percent of the total. In 1975-1976, the respective percentages of aggfegate need for the lower income students is 38 percent and for the upper income students, it is 35 percent.

The Basic Educational Opportunity Grant Program (BEOG) was in its first operational year in 1973-1974. For that year, $122.1 million was appropriated for the program. New Jersey's colleges and universities undergraduates received $1,414,000 of

that appropriation. For 1974-1975, the appropriation was $475 million, and for 1975-1976, the appropriation is $660 million. The BEOG has the potential to help defray the unmet need of many undergraduates. However, because the program has received applications from less than half of the potentially eligible students in 1973-1974 and 1974-1975 and because of changes in the determination of eligibility indices, it is difficult to estimate the actual number of dollars that New Jersey's colleges and universities students might receive under the program this year or in the 1975-1976 academic year.

An estimate of the maximum amount of grant dollars that New Jersey's colleges and universities students are likely to receive in 1974-1975 is, however, offered in Table Seventeen. The total is $17.7 million. This estimate is based upon the eligibility indices for 1974-1975, the average awards for those indices, and the proportions of students from each income interval who typically receive grants in response to their applications. No estimates are provided for the 1975-1976 academic year as the BEOG contribution schedules were not available at the time of this writing.

TABLE SEVENTEEN

Estimated Basic Grant Award Distributions, 1974-75, by Institutional Types and Income Intervals (amounts in 1,000's)

Income Intervals	4 year Public	4 year Independent	2 year Public	2 year Independent	All Colleges
Less than $6,000	$4,216	$ 923	$4,634	$ 99	$ 9,872
$6,000 to $8,999	2,337	731	2,204	96	5,368
$9,000 to $11,999	606	258	542	26	1,432
Independent Students	344	110	568	5	1,027
	$7,503	$2,022	$7,948	$226	$17,699

If it is assumed that the maximum Basic Grant Awards in 1975-1976 are at least as large as the maximum in 1974-1975 and if it is assumed that all financial aid available in 1973-1974 will be available in 1975-1976, then it is possible to provide a reasonable estimate of the likely minimum amount of unmet need for that year. This estimate is provided in Table Eighteen.

TABLE EIGHTEEN

Estimated Minimum Aggregate
Unmet Financial Need in 1975-76,
by Institutional Types and Income Intervals
(amounts in 1,000's)

Income Intervals	4 year Public	4 year Independent	2 year Public	2 year Independent	All Colleges
Less than $6,000	$ 59	$ 2,753	$ 2,764	$ --	$ 5,576
$6,000 to $8,999	6,278	6,497	1,000	295	14,070
$9,000 to $11,999	16,138	14,583	5,474	583	36,778
$12,000 to $14,999	12,259	11,496	3,843	540	28,138
More than $15,000	8,451	14,969	361	645	24,426
Independent Students	--	1,562	--	--	1,562
	$43,185	$51,860	$13,442	$2,063	$110,550

Changes in expected family contributions and maximum access to BEOG awards do not result in dramatic shifts in the proportions of "new" unmet need among institutional types. These factors do, however, result in shifts of unmet need among family income intervals. In 1973-74, the students from families with incomes of more than $12,000 experienced only twelve percent of the unmet need. By 1975-76, their percentage of the unmet need will be approximately 47 percent, assuming that no new or increased resources will be made available to them. On the other hand, if the BEOG program operates as assumed here, the proportion of unmet need experienced by students from families with less than $9,000 will decrease from 47 percent to 18 percent of the total.

It is clear that the financial aid problem for New Jersey's college and university students is now quite large and is likely to increase, even though its major locus and impact may change with time.

APPENDIX A

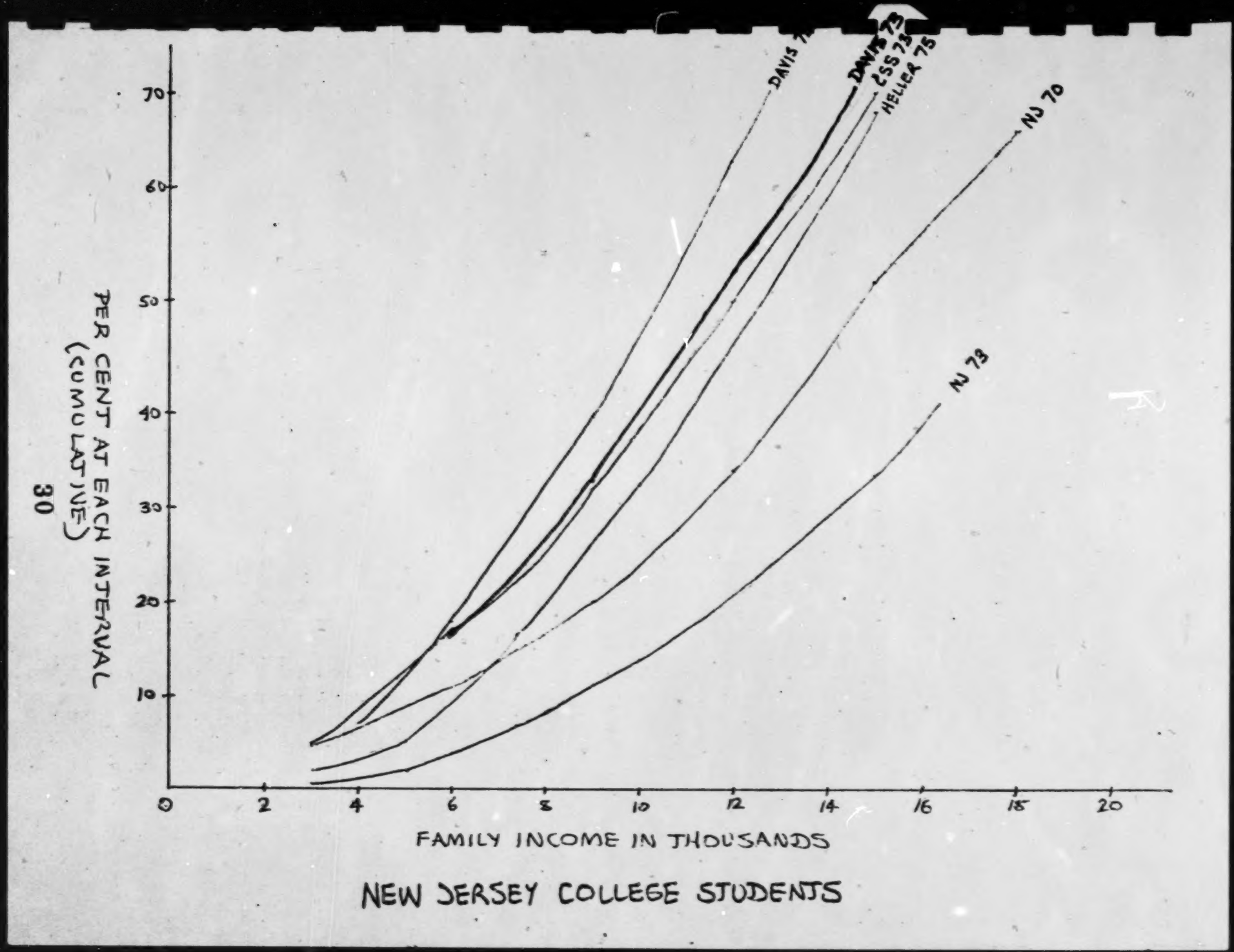
CUMULATIVE PERCENTAGES BY FAMILY INCOME CLASSES

FOR STUDENTS IN NEW JERSEY COLLEGES

APPENDIX A

Cumulative Percentages by Family Income Classes for Students in New Jersey Colleges

Income Class	NJ 70 Census, 1970 All Students (Public Use Sample, Adjusted)	NJ 73 Census, 1970 (Public Use Sample, Adjusted)	Heller 1975 Public College Students 18-21	CSS 73 All PCS Filers	Davis 1972 Institutional Financial Aid Applications, All N.J. Colleges	Davis 1973 Institutional Financial Aid Applications, All N.J. Colleges
0 - $2,999	4.8	0.4	2.2	4.8		
to $4,999		1.8	5.4			
to $5,999	10.7			16.7	17.8	16.9
to $7,499	15.4	7.0	16.2	23.5		
to $8,999	20.5			32.3	39.3	33.4
to $9,999		7.6	32.8			
to $11,999	33.7			50.6	63.2	53.1
$12,000+						
to $14,999	52.2	25.3	68.0	69.3		72.0
$15,000+		43.2				
to $17,999	66.5					
to $19,999			86.6	88.9		
to $20,999	77.8					
to $23,999				95.7		
$24,000+		99.9		98.3		
$20,000						



NEW JERSEY COLLEGE STUDENTS

APPENDIX B

INDEPENDENT STUDENT NEEDS AND RESOURCES

APPENDIX B

Independent Student Needs and Resources

Probably no other issue in financial aid in recent years has occupied as much attention of financial aid administrators as the measurement of financial need and awarding of aid to the independent student. Aid administrators and public policy-makers have debated the criteria for determining who should be considered an independent student for financial aid purposes. They have not reached agreement on those criteria, nor is there a great deal of consensus on procedures or methodology for determining their financial need. The debate is likely to continue for some time. The needs of these students are significant and deserve an estimate of their magnitude. For this reason, a special attempt is made here.

The most widely accepted definition of the independent student in financial aid is a student who has not during the calendar year prior to the date he expects to receive financial aid, resided with, been claimed as a dependent for Federal income tax purposes by, or been the recipient of an amount in excess of $200 from one or both parents or any other person acting in loco parentis.

In 1973-1974, approximately 21,000 students who fit this definition were full-time undergraduates in New Jersey's colleges and universities. Over 82 percent of them were enrolled in public colleges in the State. In order to estimate their financial need, their costs of education and maintenance had to be determined. Then an estimate of their available resources to pay those costs had to be derived.

The weighted average costs for tuition and fees and books and supplies for independent students in New Jersey's colleges and universities was estimated to be $930. To determine their maintenance costs, as estimate of the number of students of different family circumstances was obtained from those students who filed the College Scholarship Service's Student Financial Statement at a New Jersey college in 1973-74. Table One displays the estimated percentages of independent students of

various family circumstances.

TABLE ONE

Family Circumstances of New Jersey
Independent Full-time
Undergraduates

	Percent
Single - no children	51.3%
Married - no children	15.4
Married - one child	9.0
Married - two children	6.1
Married - three children	5.7
Single - one child	7.5
Single - two children	5.0
	100.0%

Using Bureau of Labor Statistics data for moderate living standards of persons of these family circumstances, a weighted average maintenance budget was derived. The average was $4,464. This amount, added to the $930 for educational costs, resulted in an estimate of total weighted average resources required by independent students to enroll in college. That estimate was $5,394.

A 1972-1973 survey of independent undergraduates at a public college in New Jersey produced an estimate of the annual incomes of independent students in the State. The survey estimate was verified against research reports on independent students in similar states. The income distribution is presented in Table Two.

TABLE TWO

Estimated Income of
New Jersey Independent Students

Less than $3,000	10.5%
$3,000 to $5,999	23.2
$6,000 to $8,999	22.4
$9,000 to $11,999	15.0
More than $12,000	28.9

It was assumed that students with incomes of more than $5,394 could, on the average, afford to attend a New Jersey college. The difference between this amount and their

income would be used to represent their financial need.

The median income of students with less than $6,000 income was estimated to be $3,821. The difference between $5,394 and $3,821 is $1,573. The amount represents the assumed average need of each of the independent students with incomes of less than $6,000. There are approximately 7,083 such students. So, 7,083 was multiplied by $1,573 to produce an estimated aggregate need of $11,141,559.

Since the only difference in total costs experienced by independent students is assumed to be the different tuition and fees and books and supplies they pay for, the aggregate financial need was apportioned among institutional types in proportion to the weighted average costs. This produced institutional estimates of financial need for independent students. These are given in various tables throughout the report.